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ABSTRACT

This paper briefly summarizes the findings from a national survey for the Measurement Services Association (MSA) of testing and measurement offices regarding their organizational characteristics and their activities and services. Questionnaires were mailed to all testing offices (n=146) at colleges and universities on the MSA Newsletter mailing list and to public institutions (n=64) with budgets in excess of 50 million dollars that were not on the MSA mailing list. The 71 responding institutions are listed in Appendix A. The report contains two sections: (1) descriptive lists of results for each survey question; and (2) selected cross-tabulations of responses to two or more questions. Based on the average or most frequent responses, the typical measurement center has the following characteristics: it (1) is administratively associated with Academic Affairs and reports to a Director; (2) receives one-fourth its revenues from outside sources; (3) has three professional staff members and approximately 10 total staff members; (4) has about a 3.0 full time employee computer programming effort; (5) has an annual budget of $182,721; (6) provides test scoring, national test administration, scanning, teaching evaluation, data analysis, credit by examination, survey research, and process counseling tests; and (7) does not conduct basic measurement research. (BS)

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Survey of Characteristics of Measurement Services Offices

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Annual Meeting of
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Survey of Characteristics of Measurement Services Offices

This paper is a brief summary of the findings from a nationwide survey of testing and measurement offices regarding their organizational characteristics and their activities and services. The survey was requested by the Measurement Services Association (MSA), which is an interest group of the National Council for Measurement in Education.

Method

The questionnaire was based on questions from a 1982 survey by Lee Olsen, from comments MSA members provided through solicitations in our MSA Newsletter, and from areas the authors considered of current interest. A mailing list of institutions was drawn from two sources. First, all testing offices (N=146) at a college or university on the mailing roster for the MSA Newsletter were included. Testing organizations and computing centers that just operate scanning machines were eliminated because of the nature of the survey. Second, public institutions (N=64) with reported budgets in excess of $50 million and not in our first group were surveyed in the hope of broadening our sample. No expectations for generalizing to a larger population were made. Offices in the MSA that did not respond to the original letter for participation were sent follow-up letters. A total of 71 institutions returned completed questionnaires, and these institutions are listed in Appendix A.

The report is divided into two sections. The first section descriptively lists the results of the questions from the survey. The second section contains selected cross-tabulations of responses to two or more questions.

Typical Measurement Center

Based on the average or most frequent responses, the typical measurement center has the following characteristics:

- is administratively associated with Academic Affairs,
- reports to a Director,
- receives about one-fourth of its revenues from outside sources such as customer fees and contracts,
- has 9 to 10 total staff members,
- has about 3 professional staff members averaging $26,346 in annual salaries,
- has about 3.0 FTE computer programming effort,
- has an average annual budget of $182,721,
- provides test scoring, national test administration, scanning, teaching evaluation, data analysis, credit by examination, survey research, and process counseling tests,
- owns an NCS scanning machine that scans 480,975 documents,
- calculates item analyses on a mainframe with one day test scoring turnaround,
- owns at least one microcomputer,
- and does not conduct basic measurement research.

SECTION I
Questionnaire Results by Item

Organizational Characteristics

1. Approximately what percentage of your budget comes from these sources? (see Figure 1)

Mean Percentage	Institutions with Funding From	
22	25 or 35%	Instructional Funds
16	46 or 65%	Customers Revenue
49	40 or 57%	Administrative Funds
7	14 or 20%	Contracts or Grants
5	6 or 9%	Student Fees

2. What is the title of the person to whom your office reports?

N	(%)	
1	(2)	President
20	(31)	Vice-President
14	(22)	Dean
28	(44)	Director
1	(2)	Below Director
7	(0)	No Response
71	101%	

3. To what vice president or division of your college or university does your office report? (see Figure 2)

N	(%)	
32	(47)	Academic Affairs
23	(34)	Student Affairs
10	(15)	Administration
3	(4)	Information/Research/Computing
3	(0)	No Response
71	100%	

4. How many full-time employees are involved in your office of testing and measurement?

Mean	
2.8	Nonprofessional (full-time)
2.9	Nonprofessional (one-half time or less)
0.9	Graduate Students
1.2	Professional (holding faculty appointment)
1.6	Professional (not holding faculty appointment)
9.4	Total Staff

5. How do you meet the computer programming needs of your office? (see Figures 3 and 4)

	Average Number of Programmers	Mean Percentage of Programming Effort
In-house computer programmers	0.8	42
Graduate Students	0.5	10
In-house professional staff	0.5	17
Campus computing center programmers	1.0	31
Off-campus programmers	0.1	1
	2.9	101%

6. What is the median annual salary of your professional staff?

75th% = $30,000 Mean = $26,346 25th% = $20,000

7. What is the approximate size of your annual budget?

75th% = $200,000 Mean = $182,721 25th% = $62,500

8. Please check the services your office provides, excluding services for which you provide consultation only.

62 or 87% Test Scoring
54 or 76% National Test Administration (e.g. SAT)
52 or 74% Scanning
50 or 70% Teaching Evaluation
45 or 64% Data Analysis
45 or 63% Credit by Examination Program
44 or 62% Survey Research
40 or 56% Process Tests Related to Counseling
34 or 48% Test Validity Studies
33 or 46% Student Services Research
27 or 38% Program Evaluation
25 or 36% Computer Programming
25 or 35% Grade Book Maintenance
24 or 34% Item Banking
4 or 6% State and Local Testing
3 or 4% Placement Testing

Average Number of Services Checked = 8

9. Accounting for inflation, over the past five years office resources have (see Figure 5)

N	(%)	
23	(33)	Increased
20	(30)	Remained the same
25	(37)	Decreased
4	(0)	No Response
71	100%	

10. What is the total enrollment of your college or university?

75th% = 27,000 Mean = 21,443 25th% = 12,000

Scanning and Scoring Services

11. What types of optical scanning machines are used at your institution? (see Figures 6 and 7)

N	Brand
52	National Computing Systems
8	Scantron
6	IBM
4	Cognitronics
3	Opscan
1	Adescan

N	(%)	
40	(66)	NCS only
13	(21)	NCS + another
8	(13)	Non NCS
10	(0)	No response or do not scan
71	100%	

12. Does the office responsible for scanning on your campus operate satellite scanning and scoring?

N	(%)	
9	(13)	Yes
62	(87)	No
71	100%	

13. Please check any organizations or agencies outside your institution to which your office offers scanning or scoring services.

44 or 63%	Nonprofit agencies
38 or 54%	Area public schools
20 or 29%	Profit making agencies
	Other

14. What is the average turnaround time for test scoring in your office?

N	(%)	
6	(10)	one hour
10	(16)	one-half day
30	(50)	one day
7	(12)	day and one-half
7	(12)	more than a day and one-half
11	(0)	no response
71	100%	

15. What is the total volume of scanning documents in your office?

75th% = 600,000 Mean = 480,975 25th% = 100,000

16. On what kind of machine do you calculate your item analysis?

N	(%)	
48	(73)	Computing center mainframe
3	(4)	Minicomputer
9	(14)	Microcomputer
6	(9)	Service not offered
5	(0)	No Response
71	100%	

Miscellaneous

17. What type and how many microcomputers does your measurement office use?

N	(%)	
46	(64)	Own at least one microcomputer
25	(36)	Does not own a microcomputer
71	100%	

Offices Owning at Least One Microcomputer of a Particular Company	Company
26	IBM (own at least one IBM PC)
9	Apple
6	Radio Shack
5	Digital Equipmant Company
4	Zenith
1	Texas Instruments
1	Charles River Data System
1	Northstar
1	Monroe-Litton
1	Kaypro
1	PSP
1	Televideo
1	Lobo
1	Altos
1	Commodore
1	Morrow
1	AT&T
1	Balcones
1	Control Data Corporation
1	Compu-Pro

18. Does your office conduct basic measurement research?

N	(%)	
23	(32)	Yes
48	(68)	No
71	100%	

19. What products and services is your office planning to develop during the next five years?

25 Test Scoring and Item Analysis Programs

7 Gradebook
Adaptive Testing

5 Change from Mainframe to Micro for Test Data
Instructor Evaluation
Student Test Score Profile
Satellite Scanning and Scoring

4 Microcomputer Based Software

3 Computer Test Registration

2 Item Bank
Write Score Data to Diskette

1 Environmental Scanning
Institutional Planning
Microcomputer Driven Computer Instruction
Retention Studies
Micro-based System which puts Scoring into Departments Directly
Custom Designed Questionnaire Analysis
State Assessment of Grades 10-12
Preschool Testing for Headstart

20. What services can NCME Measurement Services Association provide that benefit you?

N	
9	Share Materials from other Institutions
9	Share Software from other Institutions
53	No Response
71	

SECTION II

1. Is there a relationship between funding growth and the university division in which an office is associated? With its budget size?

Five Year History of Funding

		Decreased		Same		Increased	
DIVISION	Academic Affairs	11	(35%)	8	(26%)	12	(39%)
	Student Affairs	8	(38%)	9	(43%)	4	(19%)
	Administration	3	(30%)	2	(20%)	5	(50%)
	Information/Research/Computing	1	(50%)	0	(0)	1	(50%)
		25	(37%)	20	(30%)	22	(33%)
BUDGET SIZE	Under $80,000	10	(34%)	11	(38%)	8	(28%)
	$80,000 - $175,000	10	(50%)	5	(25%)	5	(25%)
	over $175,000	5	(28%)	4	(22%)	9	(50%)

There appears to be some differences between the offices who report to different academic divisions. Although there were no major differences betweens divisions for offices whose budget has decreased, offices who reported to Administration were more than twice as likely to have their budgets increased as those who reported to the office of Student Affairs.

Half the offices with budgets over $175,000 showed a budget increase over the past five years. In contrast, half of the offices with moderately-sized budgets (between $80,000 and $175,000) had their budgets reduced.

2. Is there a relationship between division affiliation and staffing and budget levels?

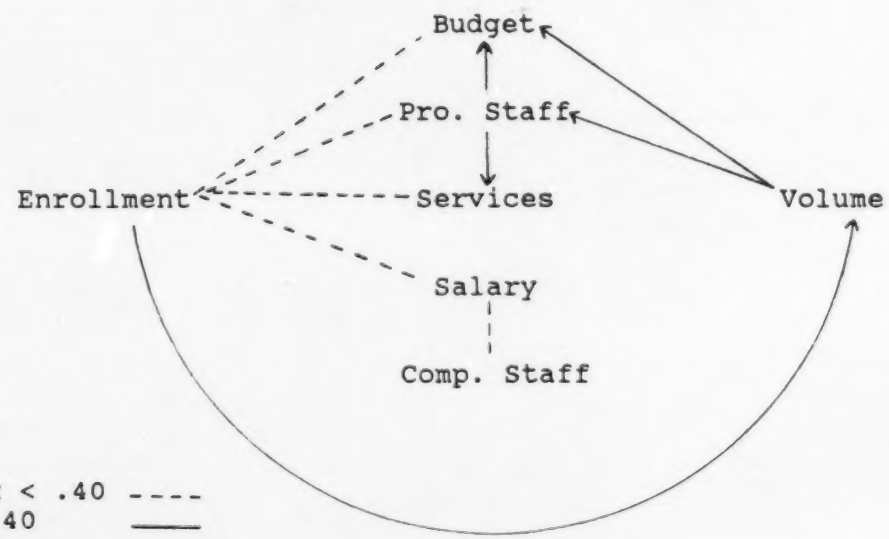
	Academic Affairs	Student Affairs	Administration	Information Research Computing
Mean Professional Staff	8	8	19	5
Mean Professional Salary	$25,803	$24,257	$29,032	$31,050
Office Budget	$179,965	$144,096	$265,767	$160,000

Offices who report to Administration have significantly larger staffs and mean professional salaries than those associated with Academic Affairs or Student Affairs.

3. How are college enrollment and total scanning volume related to office characteristics (e.g. budget size, number of staff, etc.)

Correlation Among Office Characteristics

	Prof. Salary	Budget	No. Services	Enrollment	Scanning Volume	No. Computing Staff
Budget	0.19					
No. Services	0.13	0.09				
Enrollment	0.27	0.38	0.29			
Scanning Volume	0.02	0.47	0.19	0.45		
No. Computing Staff	-0.28	-0.08	0.11	-0.12	-0.06	
No. Professional Staff	0.13	0.43	0.46	0.38	0.51	0.10



The flow diagram displays visually the correlations between the variables. Solid lines represent correlations above .40 and dotted lines represent correlations between .25 and .40. Arrows were placed by the analyst and represent hypothesized directional influences.

4. Are there differences in turn-around time as a function of what size of computer was used to analyze the data?

Type of Machine for Item Analysis
by Turnaround Time

	Mainframe	Minicomputer	Microcomputer
1 Hour	6	0	1
1/2 Day	7	2	3
1 Day	28	1	4
Over 1 Day	6	0	0

Answer: No

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5. Is there an association between offices who own smaller computers and offices who have had cuts in funding?

Five Year History of Funding
by Microcomputer Ownership

	Decreased	Same	Increased
Own Micro	16	10	16
Do Not Own Micro	8	7	5

Answer: No

FIGURE 1. TYPE OF FUNDING

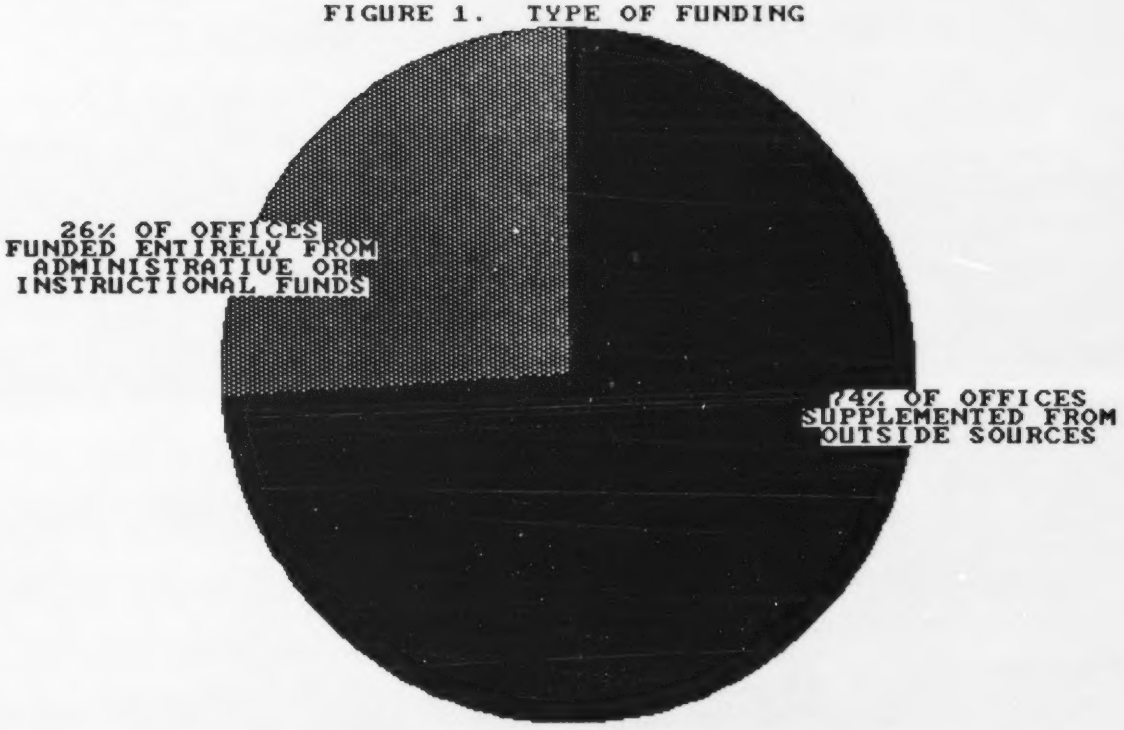
26% OF OFFICES FUNDED ENTIRELY FROM ADMINISTRATIVE OR INSTRUCTIONAL FUNDS
74% OF OFFICES SUPPLEMENTED FROM OUTSIDE SOURCES

FIGURE 2. ADMINISTRATIVE DIVISION

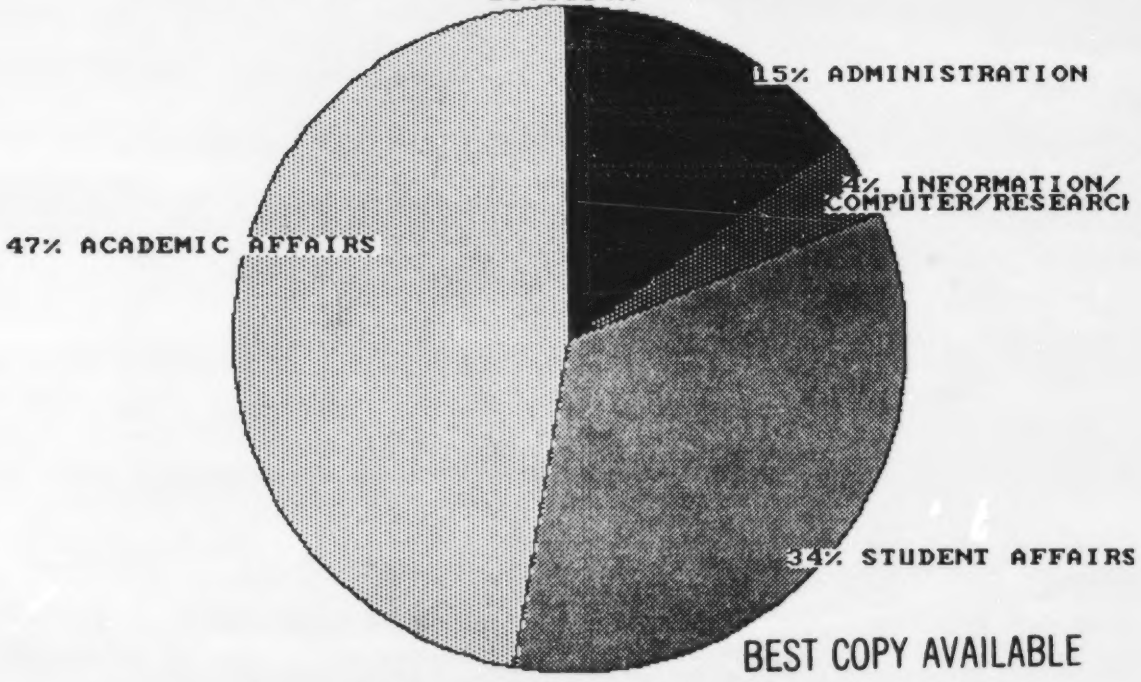

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FIGURE 3. COMPUTING SUPPORT PERSONNEL

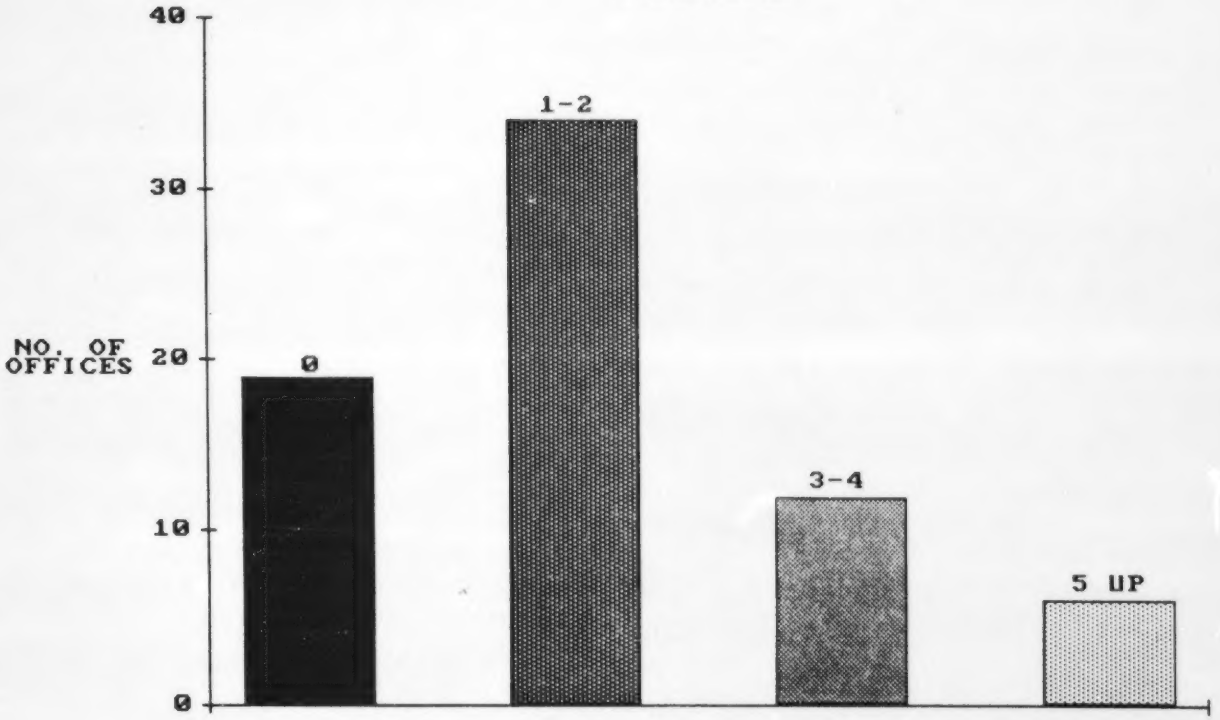

FIGURE 4. COMPUTER PROGRAMMING ACTIVITY BY TYPE OF STAFF

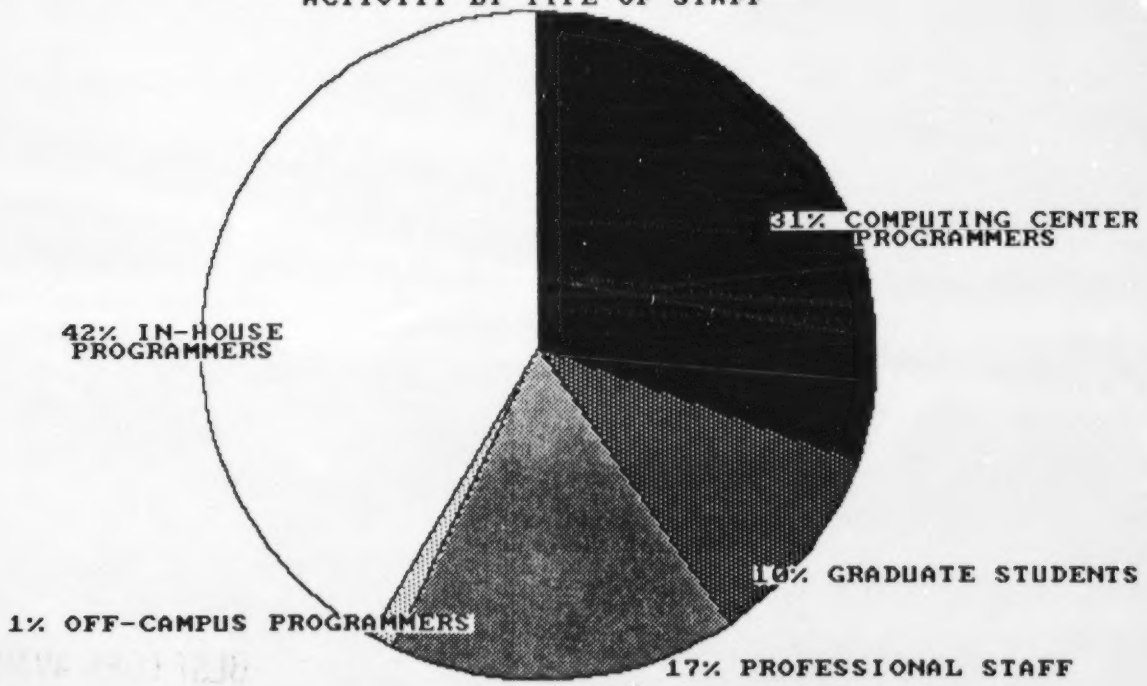

FIGURE 5. FIVE YEAR HISTORY OF FUNDING

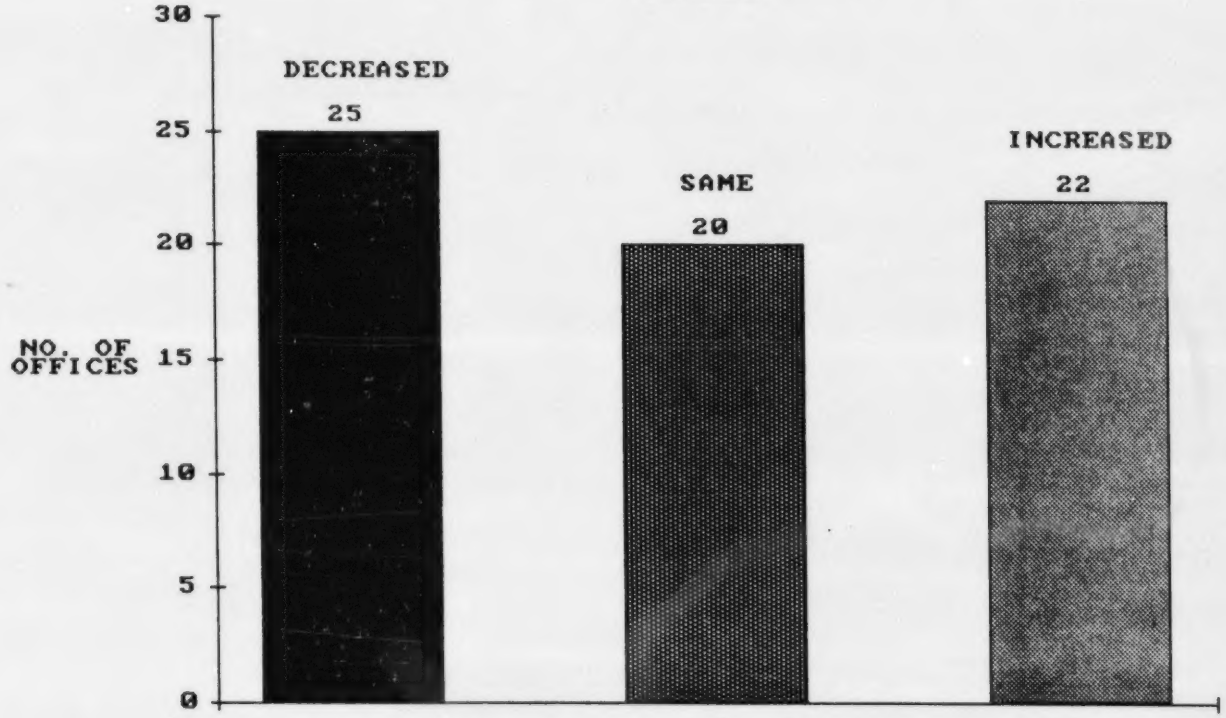

FIGURE 6. BRAND OF SCANNING MACHINE

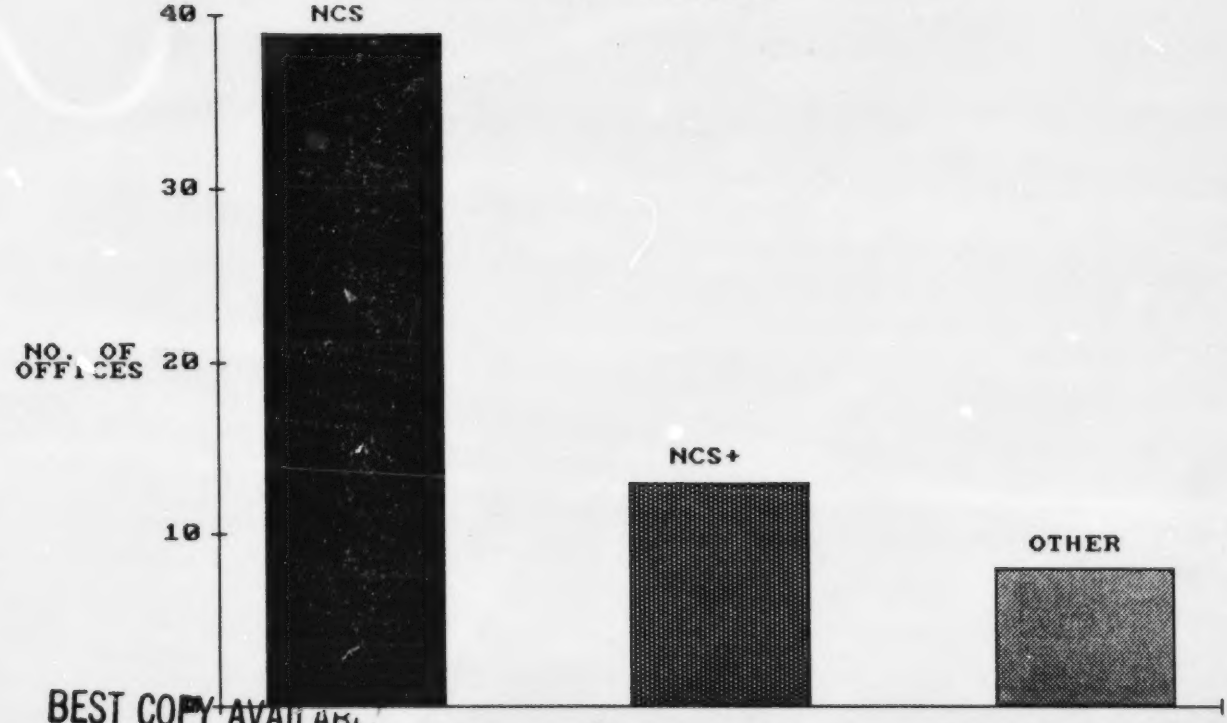

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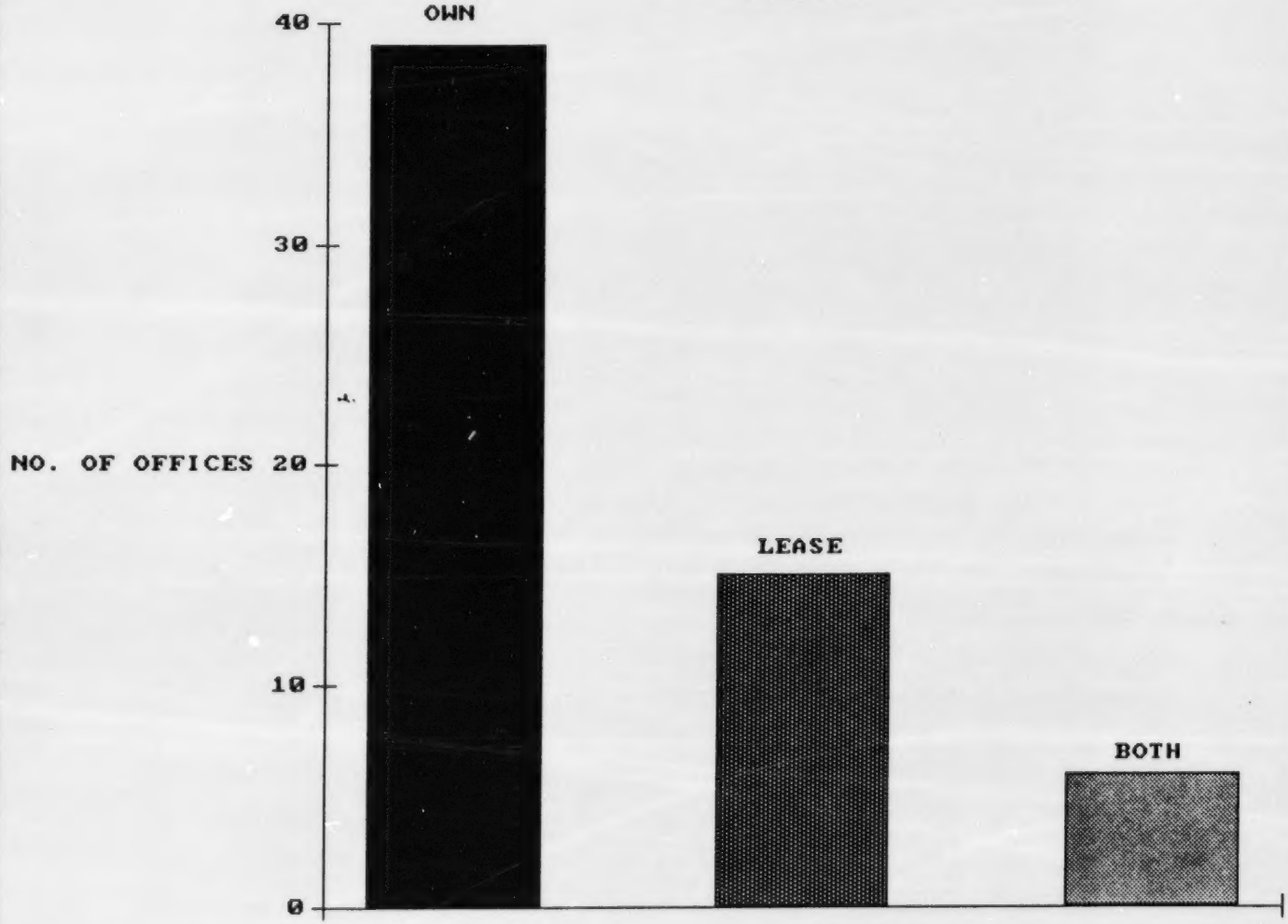
FIGURE 7. FINANCING OF SCANNING MACHINE



APPENDIX A

The University of Arizona
Office of Instructional Research and Development

California State University, Fresno
Office of Testing Services

The University of Pittsburgh
Office of Measurement and Evaluation

Eastern Illinois University
Testing Services

Indiana University
Bureau of Evaluative Studies and Testing

Kent State University
Registrar's Office

The University of Wisconsin
Testing and Evaluation Services

The University of Maine at Orono
Office of Planning and Management Systems

Purdue University
Center for Instructional Services

Eastern Michigan University
Unviersity Computing

Broome Community College
Learning Skills Center

The University of Tennessee
Tennessee State Testing and Evaluation Center

The University of Florida
Office of Instructional Resources

Virginia Polythchnic Institute and State University
Learning Resources Center

The University of Delaware
Instructional Resources Center

The University of Iowa
Evaluation and Examination Services

The University of Connecticut
Educational Research

Brookdale Community College
Academic Support Services

Northern Illinois University
Office of Testing Services

The University of Miami
Testing Center

The University of Washington
Educational Assessment Center

California State University, Chico
Office of Testing and Research

The University of Houston
Counseling and Testing Service

The University of Calgary
Faculty of Medicine

The University of Wyoming
Counseling Center

The Florida State University
Learning Systems Institute

The University of Wisconson, Oshkosh
Testing and Research Services

Emporia State University
Data Processing and Educational Measurement Center

Michigan State University
Computer Laboratory Computer Center

Arizona State University
University Testing Services

Iowa State University
Test and Evaluation Services

The University of Colorado, Boulder
Office of Research and Testing

Cornell University
Cornell Computer Services

The University of Victoria
Faculty of Education

The University of Illinois
Measurement and Research Division

The University of Arizona
Center for Educational Evaluation and Measurement

Georgia State University
Testing Office

The University of California, Davis
Teaching Resources Center

Southern Illinois University at Carbondale
Learning Resources Services

Emory University
Testing and Evaluation Services

College of DuPage
Testing and Alternative Credit Services

The Pennsylvania State University
University Testing Services

Ferris State College
Testing Office

The University of Kansas
University Counseling Center

California State University, Northridge
Testing Office

The Unviersity of Missouri, Columbia
Missouri Testing and Evaluation Service

Miami-Dade Community College
Testing and Research Department

Western Michigan Unviersity
Testing and Evaluation Services

Brigham Young University
Manager Testing Services

The University of New Mexico
Testing Division

Auburn University
Testing Services

Texas A&M University
Measurement and Research Services

The University of Alabama
Records and Testing

The University of Arkansas
Testing Services

The University of California
Teaching Innovation and Evaluation Services

The University of South Florida
Evaluation and Testing

Indiana State University
University Testing Office

The University of Louisville
Counseling Center

Wayne State University
University Counseling Center

Mississippi State University
Counseling Center

Montana State University
Testing Service

The University of Nevada, Reno
Counseling and Testing Center

The University of New Hampshire
Counseling and Testing Center

The University of North Dakota
Counseling Center

Oklahoma State University
Bureau of Tests and Measurements

South Dakota State University
Admissions and High School Relations Office

The University of Texas at Arlington
Counseling, Testing and Career Placement

Utah State Unviersity
Testing Center

Washington State University
Counseling and Testing Center

West Virginia University
Office of Institutional Research

University of Delaware
Department of Mathematical Sciences